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Rolling Knolls Landfill Superfund SITE

FIELD CHANGE REQUEST (FCR) FORM

**Contract No.:**

REQUEST NO: 07 DATE: 06/09/2015 (revised 06/16/2015)

FCR TITLE: Monitoring Well MW-20 Installation Method Modification

**DESCRIPTION:**

The Data Gaps Sampling and Analysis Plan (Data Gaps SAP) proposed installing seven permanent monitoring wells (MW-11 through MW-17). On March 5, 2015, the USEPA requested adjustments to the proposed locations of MW-12 and MW-15. The USEPA also requested the installation of three additional monitoring wells (MW-18 through MW-20). Prior to installing the monitoring wells, ARCADIS personnel and a USEPA representative inspected each proposed monitoring well location. The proposed locations for MW-13, MW-14, MW-18 and MW-20 were found to be in approximately 6 to 24 inches of standing water. Revised locations and alternative installation methods for these monitoring wells were proposed in Field Change Request 06 (FCR-06), submitted to USEPA on April 22, 2015. USEPA approved FCR-06 on April 27, 2015.

The modifications listed below were implemented without prior discussion with USEPA or without USEPA consent. This FCR is being submitted at the request of USEPA, after MW-20 was installed.

**REASON FOR DEVIATION:**

The alternate method described in FCR-06 proposed using a tripod-mounted winch to advance a 2-inch diameter macrocore, split-spoon sampler or other coring method to approximately 20 feet below ground surface (bgs). After logging, an 8-inch diameter steel casing would be driven approximately 2 feet into the stable substrate underlying the wet area. A hand auger, water-rotary drilling, or other means would be used to advance a 6-inch diameter borehole to the well completion depth.

The alternate method allowed the screen interval to be shortened to 5 feet. The bentonite/cement grout was to extend 1 to 2 feet below the bottom of the 8-inch casing, and fill the annular space between the 2-inch PVC pipe for the monitoring well and the 8-inch casing.

At the proposed location of MW-20, the stable substrate was identified at 9.0 feet bgs. Installing the steel casing at 11.0 feet bgs (two feet into stable substrate) and constructing the well with a 5 feet screen below the casing as described in the FCR-06 would have resulted in a well that was screened deeper than other perimeter wells at the site and could bypass potential impacts at shallower depths. Monitoring wells installed around the perimeter of the landfill are generally screened from 2 to 12 feet bgs.

**RECOMMENDED MODIFICATIONS:**

The weight of the 8-inch casing exceeded the safe working limits of the tripod-mounted winch, and the plywood working/walking surfaces that were necessary to access the well location in the wet area. Therefore, a 6-inch diameter casing was used.

The objective of MW-20 is to monitor shallow groundwater for potential impacts related to the landfill. As a result, monitoring well MW-20 was set at 9.0 feet bgs, and screened from 5.5 to 9.0 feet bgs. This screen depth was

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selected to ensure that the shallow groundwater above the competent layer (clay or silty clay) was monitored, rather than groundwater below this layer.

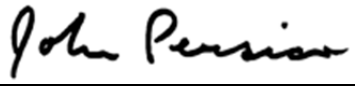
The casing was installed at 0.0 to 4.0 feet bgs rather than 0.0 to 11.0 feet bgs. A bentonite/cement seal was installed from 0.0 to 5.0 feet bgs. No. 00 sand was installed from 5.0 to 5.2 feet. bgs, and sand filter pack was installed from 5.0 to 9.0 feet bgs around the screen. A locking protective stick up casing was installed around the 2-inch PVC pipe.

**IMPACT ON PROJECT OBJECTIVES:**

The revised monitoring construction details meet the project objective of collecting representative groundwater samples to characterize constituent concentrations in groundwater at the perimeter of the landfill.

Dated Signatures:  06/09/2015 (revised 06/16/15)

(Field Team Leader)

 06/09/2015 (revised 06/16/15)

(Project Manager)

Distribution:
T. Mitchell, EPA Remedial Project Manager
Quality Assurance Coordinator
RI Task Leader
Project File